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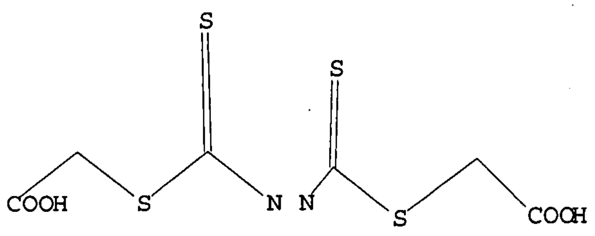

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FULL SEARCH INITIATED 11:27:42 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -       37 TO ITERATE

100.0% PROCESSED       37 ITERATIONS                             10 ANSWERS
SEARCH TIME: 00.00.01

L8             10 SEA SSS FUL L7



L9             8 L8

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      21899871 PY<2002
L10            8 L9 AND PY<2002

=> d 1-8 ibib abs hitstr

L10  ANSWER 1 OF 8  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2000:303462  CAPLUS
DOCUMENT NUMBER:          133:37293
TITLE:                    Spectral studies of metal complexes of a new type of
                          bis(thiosemicarbazone)
AUTHOR(S):                Swearingen, John K.; West, Douglas X.
CORPORATE SOURCE:         Department of Chemistry, Illinois State University,
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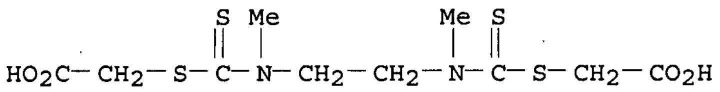
Normal, IL, 61790-4160, USA
SOURCE: Transition Metal Chemistry (Dordrecht, Netherlands) (2000), 25(3), 241-246
CODEN: TMCHDN; ISSN: 0340-4285
PUBLISHER: Kluwer Academic Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Co(II), Ni(II) and Cu(II) complexes of two new bis(di-2-pyridyl ketone) dithiosemicarbazones were prepared in EtOH solution and characterized by phys. and spectral methods. The bis(di-2-pyridyl ketone) dithiosemicarbazones were prepared from dithiosemicarbazides derived from piperazine and N,N'-dimethylethylenediamine. NMR, IR, and electronic spectra of the dithiosemicarbazones and their complexes along with ESR spectra of the Cu(II) complexes were recorded. The complexes are binuclear for Co and Ni, and tri- and tetranuclear for copper, and involve the dithiosemicarbazones coordinating as dianionic, anionic and neutral ligands.

IT 273749-07-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(for preparation of bis(di-2-pyridyl ketone) dithiosemicarbazone ligand)
RN 273749-07-8 CAPLUS
CN 3,10-Dithia-5,8-diazadodecanedioic acid, 5,8-dimethyl-4,9-dithioxo- (9CI) (CA INDEX NAME)



$$HO_2C-CH_2-S-\overset{\overset{S}{\|}}{C}-\overset{\overset{Me}{|}}{N}-CH_2-CH_2-\overset{\overset{Me}{|}}{N}-\overset{\overset{S}{\|}}{C}-S-CH_2-CO_2H$$

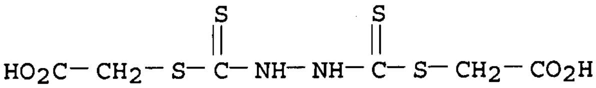
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1967:46362 CAPLUS
DOCUMENT NUMBER: 66:46362
TITLE: Dithiocarbamates. I. Derivatives of rhodanine
AUTHOR(S): Talukdar, Purnendu B.
CORPORATE SOURCE: East India Pharm. Works Ltd., Calcutta, India
SOURCE: Indian Journal of Applied Chemistry (1965), 28(6), 197-202
CODEN: IJACAN; ISSN: 0019-5065
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.

AB Several derivs. of rhodanine (I) related to 3-aminorhodanine were prepared, by standard procedure, for evaluating their antimicrobial properties. An aqueous solution of 0.05 mole chloroacetic acid in 25 ml. H2O was neutralized with 30% aqueous NaOH to about pH 6 and finally adjusted at 7.0-7.5 with dilute Na2CO3. To this solution, either the dithiocarbamate or dithiocarbazate salt or its solution in water was added portionwise with agitation at 30-35°. The mixture was stirred 3-4 hrs. at room temperature, cooled in ice, neutralized carefully with HOAc, and the pH adjusted to .apprx.4.0 with 6N HCl. The precipitated white solid was collected and crystallized
Thus prepared
were the following RNHCS2CH2CO2H(R and m.p. given): PhNH, 129°; p-H2NSO2C6H4NH, 156°; Ph2N, 161.5-62°; morpholino, 182°; piperidino, 156°; Et2N, 90-1°; HO2CCH2CS2NH, 165°. A mixture of carboxymethyldithiocarbamates or dithiocarbazates, (0.01 mole) and .apprx.10 ml. Ac2O was gently heated on a steam bath until the light yellow color changed to yellow brown. Time of heating varied from 10 min. to 30 min. The mixture was cooled to room temperature and 10 ml. of a 1:1 mixture of H2O and AcOH was carefully added.
On

keeping in the cold the rhodanines usually separated as solids. Thus were prepared the following I (R, m.p., and % yield given): PhNH, 133-4°, 76; p-O2NC6H4NH, 186-7°, 37; p-H2NSO2C6H4NH, 194-5°, 17; Ph2N, 112-13°, 18; morpholino, 138°, 87; piperidino, 127-8°, 97; Et2N, 75-6°, 27; cyclohexyl, 124-4.5°, 85; H2NCONH, 194-5°, 34.5; 3,3'-ethylenebis, 192-2.5°, 75. Benzylidene derivs. of I were prepared in the usual way in ethanolic solution in presence of either a few drops of piperidine or Et3N. The following benzylidene derivs. of I were prepared (R and m.p. given); PhNH, 194°; Ph2N, 164°; morpholino, 188°; piperidino, 137°; cyclohexyl, 150°; H2NCONH, 249°.

IT 15502-71-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 15502-71-3 CAPLUS
CN Bicarbamic acid, tetrathio-, diester with mercaptoacetic acid (8CI) (CA INDEX NAME)



$HO_2C-CH_2-S-\overset{S}{\overset{\|}{C}}-NH-NH-\overset{S}{\overset{\|}{C}}-S-CH_2-CO_2H$

L10 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1965:431515 CAPLUS
DOCUMENT NUMBER: 63:31515
ORIGINAL REFERENCE NO.: 63:5580g-h,5581a-d
TITLE: Syntheses of derivatives of N,N-disubstituted dithiocarbamic acids of thiophene series
AUTHOR(S): Fedorov, B. P.; Gorushkina, G. I.; Gol'dfarb, Ya. L.
SOURCE: Zhurnal Organicheskoi Khimii (1965), 1(4), 777-87
CODEN: ZORKAE; ISSN: 0514-7492
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB N-Isoamyl-N-2-thienylamine kept at 0° with aqueous NH4OH and CS2 6 hrs., then treated with ZnCl2-NH4OH gave 74% Zn N-isoamyl-N-2-thienyldithiocarbamate, m. 151-2°; similarly were prepared analogous Zn salts [N-alkyl(aryl) group shown]: Et m. 182-4°; iso-Bu m. 111-12°; 2-thenyl m. 214-16°; p-HOC6H4 m. 227-8°; also were reported: Zn N-2-(5-methyl)-thienyl-N-ethyldithiocarbamate, m. 155-6°; N-2-(5-methyl)-thienyl-N-isoamyldithiocarbamate m. 120-1°; N-2-(5-methyl)-thienyl-N-γ-hydroxypropyldithiocarbamate m. 105-7°; Zn N-2-furyl-N-thenyldithiocarbamate, m. 205-6°, was prepared from the Na salt and ZnCl2 in aqueous NH4OH. 2,2'-Dithienylamine and CS2 in aqueous alc. NaOH at -5° gave N,N,N' ,N'-tetra-2-thienylthiuram disulfide, m. 129-30°, after oxidation of the dithiocarbamate with K3[Fe(CN)6]. Similarly were prepared, the analogs (sym. substituents shown): 2-thenyl, Et, m. 92-5.5°; 5-methyl-2-thenyl, Et, m. 98-9°; 2-thenyl, iso-Bu, m. 82-4°; 2-thenyl-iso-amyl, m. 70-2°; 5-methyl-2-thenyl, iso-amyl, m. 80-1°; 2-thenyl, 2-thenyl, m. 129-30°. Thenyl chloride and Na N-ethyl-N-phenyldithiocarbamate heated in EtOH 2 hrs. gave 2-thenyl N-ethyl-N-phenyldithiocarbamate, b0.9 203-5°, m. 53.5-4.5°; similarly were prepared the analogous esters (N-substituents shown): Et, Et, b0.33 150-2°, n20D 1.6310; Bu, Bu, b0.01 151-2°, 1.5900; PhCH2, Me, m. 57-9°; PhCH2, Et, b0.055 197-8°, 1.6575; Ph, Me, m. 97-8°; 2-thenyl, Me, m. 67-7.5°; 2-thenyl, Et, m. 51-2.5°; 2-thenyl, p-tolyl, m. 80-1°; 2-thenyl, p-hydroxyphenyl, m. 103-4°; 2-thenyl, p-anisyl, m. 86-7°; cyclopentamethylene, m. 46-7°; 3-oxacyclopentamethylene, m. 54-6°; also was prepared 2-thenylidene

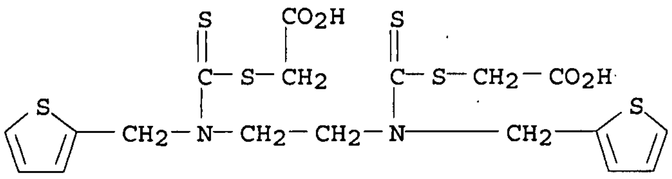
bis(N,N-diethyldithiocarbamate), m. 97-8°, by treatment of 2-thiophenecarboxaldehyde with PCl5 in CHCl3 at 0°, and treatment of the crude product with Na N,N-diethyldithiocarbamate in Me2NCHO at 90°. The appropriate Na dithiocarbamates treated with halogenated compds. gave: 2,4-dinitrophenyl N-methyl-N-2-thenyldithiocarbamate, m. 130-1°; similarly were prepared the analogs: the ester group shown: MeCOCH2, m. 52-3°; MeC(OH)(SO3Na)CH2, a solid; CH2CMe:NNHC6H3(NO2)2-2,4, m. 119-20°; CH2CH2NH2.HBr, m. 167-9°; CH2CO2H, m. 188-19°; CH2 CO2Me, m. 57.5-8.5°; CH2CO2Bu, m. 57-8°; CH2CONH2, m. 129-30°; CH2CONHNH2, m. 121-2°; CH2CH2NEt2, b0.02 167-70°; CH2CH2OCONHPh, m. 84-5°; CH2CH2OH, oil; CH2CH2OCOC6H4NO2-p, m. 89-90°; also was prepared (2-C4H3SCH2NMeCS2CH2)2, m. 113-14°. N,N'-Di(2-thenyl)ethylenediamine and CS2 in aqueous alc. NaOH at room temperature gave Na N,N'-di(2-thenyl)-N,N-ethylenebisdithiocarbamate, a solid. This and ClCH2CH2OH at 40° 3 hrs. gave [2-C4H3SCH2N(CS2R)CH2]2 (R = HOCH2CH2), m. 104-5°; similarly were prepared the analogs: CH2CO2H, m. 182-3°; CH2COMe, m. 138°; CH2CO2Et, m. 134-5°; 2-thenyl, m. 145-7°.

Heating Na N-2-thenyl-N-p-carboxyphenyldithiocarbamate with 2-thenyl chloride in EtOH gave N-2-thenyl-N-p-carboxyphenylamine, m. 167-9°, and N,N-di-2-thenyl-N-p-carboxyphenylamine, m. 194-5°. Na N-methyl-N-2-thenyldithiocarbamate and 1-bromo-2-aminoethane-HBr in aqueous alc. NaOH gave N-methyl-N-2-thenyl-2-aminothiazoline, b0.025 112-13°. Heating Na N-2-thenyl-N-o-hydroxyphenyldithiocarbamate in organic solvents gave 100% 3-(2-thenyl)-2-benzoxazolethione, m. 142-3°.

IT 1930-43-4P, Acetic acid, mercapto-, diester with ethylenebis[2-thenyldithiocarbamic acid]
RL: PREP (Preparation)
(preparation of)

RN 1930-43-4 CAPLUS

CN Acetic acid, mercapto-, diester with ethylenbis[2-thenyldithiocarbamic acid] (8CI) (CA INDEX NAME)



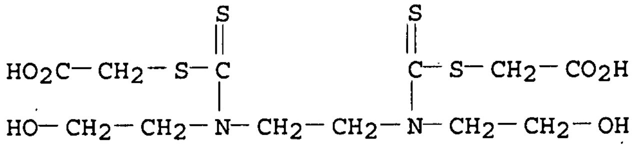
L10 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1964:9473 CAPLUS
DOCUMENT NUMBER: 60:9473
ORIGINAL REFERENCE NO.: 60:1638b-c
TITLE: Synthesis of substituted N-vinylacetanilides
AUTHOR(S): Hsu, Yu-Wu; Skorokhodov, S. S.; Vansheidt, A. A.
CORPORATE SOURCE: High Polymer Inst., Leningrad
SOURCE: Zhurnal Obshchei Khimii (1963), 33(9), 2935-8
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Heating 80 g. AcNHPh and 5 g. its Na derivative Under C2H2 at 18 atmospheric (initial) 2 hrs. at 150° gave 44% AcNPhCH:CH2, b4 105-7°, m. 49-50°. Similarly were prepared the following ArNAcCH:CH2 (Ar, % yield, b.p. and m.p., shown): o-MeC6H4, 55, b2 102-4°, 39-40°; p-MeC6H4, 42, b3 111-12°, 79-80°; m-MeC6H4, 41, b2 105-6°, 48-9.5°; o-ClC6H4, 28, b5 118-20°, 35.5-37°; p-ClC6H4, 40, b5 144-5° (b3 125-8°), 96-7°; m-ClC6H4, 40, b3 125-7°, 80-1°; o-MeOC6H4, 23, b3 130-3°, -; p-MeOC6H4, 35, b3 130-2°, 43.5-45°; m-MeOC6H4, 40, b3 131-2°, 60-1.5°.

IT 96080-63-6
(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 96080-63-6 CAPLUS

CN Carbamic acid, ethylenebis[(2-hydroxyethyl)dithio-, S,S-diester with mercaptoacetic acid (7CI) (CA INDEX NAME)



L10 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:	1964:9472 CAPLUS
DOCUMENT NUMBER:	60:9472
ORIGINAL REFERENCE NO.:	60:1637h,1638a-b
TITLE:	Syntheses of N,N'-bis(2-hydroxyethyl) derivatives of ethylene- diamine containing the thio amide group
AUTHOR(S):	Podgornaya, I. V.; Ya, I.
SOURCE:	Postovskii. Zh. Obshch. Khim. (1963), 33(9), 2938-42
DOCUMENT TYPE:	Journal
LANGUAGE:	Unavailable

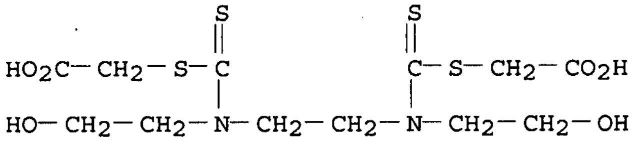
GI For diagram(s), see printed CA Issue.

AB The title compds. were prepared for evaluation as potential antituberculous agents. Ethylene oxide (35 g.) kept 1 day with 100 ml. 20% aqueous (CH2NH2)2 gave some H2NCH2CH2-NHCH2CH2OH, b13 127-36°, and 25% (CH2NHCH2CH2OH)2 (I), b13 175-90°, m. 98-9°; di-HCl salt m. 141-3°; monopicrate does not melt at 200°. I treated with 2 moles ArNCS and heated 10 min. in EtOH gave the following [CH2N(CH2CH2OH)CSNHAr]2 (Ar and m.p. shown): Ph, 185-6°; p-MeOC6H4, 181-2°; p-EtOC6H4, 188-9°; p-ClC6H4, 200-1°; 1-C10H7, 199-200°. I and EtOH saturated with NH3, followed by CS2, rapidly gave 93% [CH2N(CH2CH2OH)CS2NH4]2 (II), m. 116-18°, which on acidification decomposed into CS2 and I. II and MeI in H2O gave 91% [CH2N(CH2CH2OH)CS2Me]2, m. 119-21°, which with 50% EtOH and NaOH at pH 8-9 gave 81% III, m. 213-15°. II and ClCH2CO2K in H2O 3 hrs. at 60° gave 55% [CH2N(CH2CH2OH)CS2CH2CO2H]2, m. 164-5°, which with alkali reverted rapidly to III.

IT 96080-63-6P, Acetic acid, mercapto-, ethylenebis[(2-hydroxyethyl)dithiocarbamate]
RL: PREP (Preparation)
(preparation of)

RN 96080-63-6 CAPLUS

CN Carbamic acid, ethylenebis[(2-hydroxyethyl)dithio-, S,S-diester with mercaptoacetic acid (7CI) (CA INDEX NAME)



L10 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1962:444790 CAPLUS

DOCUMENT NUMBER: 57:44790
ORIGINAL REFERENCE NO.: 57:8966a-b
TITLE: Fungicidal compounds
INVENTOR(S): van der Kerk, Gerrit J. M.
PATENT ASSIGNEE(S): N. V. Philips' Gloeilampenfabrieken
SOURCE: 4 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

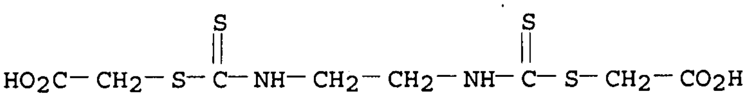
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 96797		19610116	NL	19550330 <--

PRIORITY APPLN. INFO.: NL 19550330

AB Fungicidal compds. with systemic activity are the dithiocarbamates of the formula R1R2NC(S)YR3C(O)X or the formula R4 [NR2C(S)YR3C(O)X]2, in which R1 and R2 are H or alkyl, or may form a 5- or 6-membered ring with N; R3 is alkylene, aralkylene or arylene; R4 = R3, or may form a ring with the NR2 groups; X is NH2, OH, ONa, or O-alkyl, O-aryl or O-aralkyl; and Y is O or S. Examples are S-1-carboxypropyl N,N-dimethyldithiocarbamate, the corresponding carboxymethyl, or 1-carboxyethyl derivs. The active compds. are applied prophylactically or on infected plants in the form of mixts. with solid or fluid carriers in usual dilns.

IT 92348-14-6, Carbamic acid, ethylenebis[dithio-, diester with Na mercaptoacetate 95708-04-6, p-Benzenedicarbamic acid, tetrathio-, diester with mercaptoacetic acid, di-Na salt
(as fungicide)

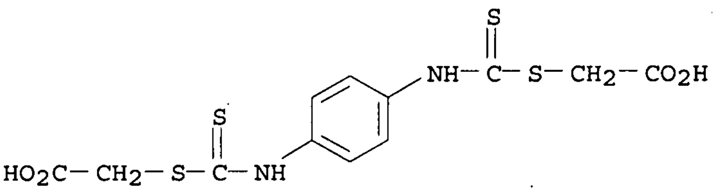
RN 92348-14-6 CAPLUS
CN Carbamic acid, ethylenebis[dithio-, diester with mercaptoacetic acid, disodium salt (7CI) (CA INDEX NAME)



$HO_2C-CH_2-S-\overset{S}{\overset{\|}{C}}-NH-CH_2-CH_2-NH-\overset{S}{\overset{\|}{C}}-S-CH_2-CO_2H$

● 2 Na

RN 95708-04-6 CAPLUS
CN p-Benzenedicarbamic acid, tetrathio-, diester with mercaptoacetic acid, disodium salt (7CI) (CA INDEX NAME)

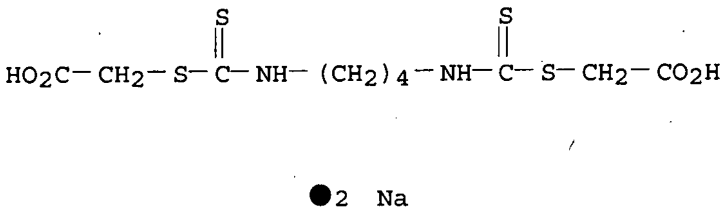


● 2 Na

IT 93689-22-6, Carbamic acid, tetramethylenebis[dithio-, diester with mercaptoacetic acid, di-Na salt
(fungicide)

RN 93689-22-6 CAPLUS

CN Carbamic acid, tetramethylenebis[dithio-, diester with mercaptoacetic acid, disodium salt (7CI) (CA INDEX NAME)



$$HO_2C-CH_2-S-\overset{\overset{\displaystyle S}{\|}}{C}-NH-(CH_2)_4-NH-\overset{\overset{\displaystyle S}{\|}}{C}-S-CH_2-CO_2H$$

●2 Na

L10 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1959:115352 CAPLUS
DOCUMENT NUMBER: 53:115352
ORIGINAL REFERENCE NO.: 53:20678e-i,20679a
TITLE: Thiocarbamates, bis(thiocarbamates), and bis(dithiocarbamates): fungicides
PATENT ASSIGNEE(S): N. V. Philips' Gloeilampenfabrieken
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

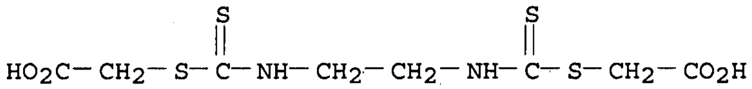
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 811861		19590415	GB 1956-9531	19560327 <--

GI For diagram(s), see printed CA Issue.

AB In one experiment with 3-week-old cucumbers inoculated with Cladosporium cucumerinum, 8 plants were wetted on 3 consecutive days with 15 ml. of an aqueous solution of di-Na S,S'-bis(carboxymethyl)ethylenebis(dithiocarbamate) (I) (1 g./l.). Another 8 plants were sprayed for 3 consecutive days with the same solution and 8 plants were untreated. After 10 days, 3 of the sprayed plants were healthy, but the remainder were infected. All the untreated plants were completely infected, but the first 8 plants (one with a dry top) were healthy. With a nutrient of glucose agar (pH 6.5), the limiting concns. for growth prevention of Botrytis allii, Penicillium italicum, Aspergillus niger, and Rhizopus nigricans were 200, 200, >500, and >500 mg./l., resp. It is suggested that I exhibits a satisfactory systemic behavior, but does not exert a direct fungicidal action. I was prepared by treating 25 g. di-Na ethylenebis(dithiocarbamate) in 200 ml. H2O with a solution of 19 g. ClCH2CO2Na overnight at room temperature The reaction mixture was cooled with ice and acidified with 0.02N HCl, yielding a precipitate which was filtered immediately and dissolved in 0.5N NaOH. The solution was filtered and evaporated to dryness. On dissolving in H2O and precipitating in EtOH and acetone, a 22% yield of I was obtained, decompose on heating. Other carbamates claimed to have an effect on harmful plant microorganisms are (EtO2CCH2SC(:S)NMeCH2, (NaOOCCH2SC(:S)NHCH2CH2)2, NaO2CCH2SC(:S)NHC6H4NIIC(:S)SCH2CO2Na, NaO2CCH2SC(:S)N.CH2.CH2.N[C(:S)SCH2 CO2Na].CH2.CH2, and Me2NC(:S)OCH2CO2H (II). To prepare II, a solution of 27 g. Na2CO3 containing 18 g. H2O and 24 g. of ClCH2CO2H was refluxed for 4 hrs. Before cooling, 17.5 g. KOH and 15.4 ml. CS2 were added and the mixture shaken for 24 hrs. The mixture was evaporated in vacuo to remove CS2 and 23.4 g. of chloroacetamide was added. After 6 hrs., the light-green solution was acidified with 65% aqueous H2SO4. On cooling, a yellow crystalline precipitate of HO2CCH2OC(:S)SCH2CONH2 was obtained in 60% yield, m. 140-2° (uncor.). To 21 g. of this product, 54 g. 25.4% dimethylamine was added and, after 24 hrs., the mixture was adjusted to pH 2 with 4N HCl. The mixture was extracted with ether, the ether dried over Na2SO4, evaporated to dryness, and the residue recrystd. from H2O to give 80% II, m. 116.5-17.5°. II appeared also to have a growth-stimulating effect.

IT 92348-14-6P, Carbamic acid, ethylenebis[dithio-, bis(carboxymethyl) ester, di-Na salt 93689-22-6P, Carbamic acid, tetramethylenebis[dithio-, bis(carboxymethyl) ester, di-Na salt 95708-04-6P, p-Benzenedicarbamic acid, tetrathio-, bis(carboxymethyl) ester, di-Na salt
RL: PREP (Preparation)
(preparation of)

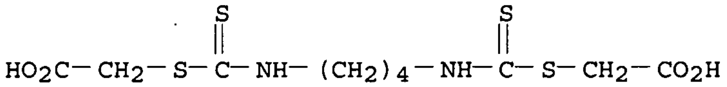
RN 92348-14-6 CAPLUS
CN Carbamic acid, ethylenebis[dithio-, diester with mercaptoacetic acid, disodium salt (7CI) (CA INDEX NAME)



$HO_2C-CH_2-S-\overset{S}{\overset{\Vert}{C}}-NH-CH_2-CH_2-NH-\overset{S}{\overset{\Vert}{C}}-S-CH_2-CO_2H$

●2 Na

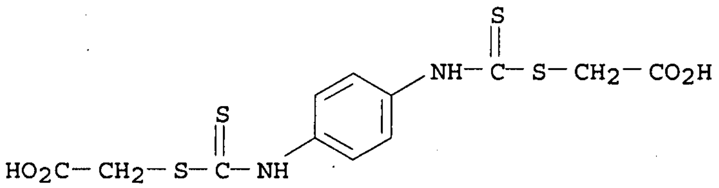
RN 93689-22-6 CAPLUS
CN Carbamic acid, tetramethylenebis[dithio-, diester with mercaptoacetic acid, disodium salt (7CI) (CA INDEX NAME)



$HO_2C-CH_2-S-\overset{S}{\overset{\Vert}{C}}-NH-(CH_2)_4-NH-\overset{S}{\overset{\Vert}{C}}-S-CH_2-CO_2H$

●2 Na

RN 95708-04-6 CAPLUS
CN p-Benzenedicarbamic acid, tetrathio-, diester with mercaptoacetic acid, disodium salt (7CI) (CA INDEX NAME)



●2 Na

L10 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:	1954:47683 CAPLUS
DOCUMENT NUMBER:	48:47683
ORIGINAL REFERENCE NO.:	48:8463g-i
TITLE:	Organic fungicides. VIII. Biochemical mode of action of bis(dithiocarbamates) and diisothiocyanates
AUTHOR(S):	Sijpesteyn, A. Kaars; van der Kerk, G. I. M.
CORPORATE SOURCE:	Org. Chem. Inst. T.N.O., Utrecht, Neth.

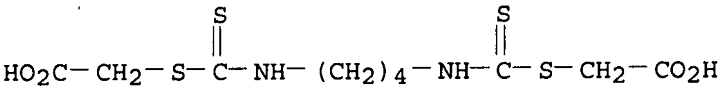
SOURCE: Biochimica et Biophysica Acta (1954), 13, 545-52
CODEN: BBACAQ; ISSN: 0006-3002
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB cf. C.A. 47, 5060h. Thiol compds. ($HS-CH_2CO_2H$ and cysteine) almost completely abolish the fungitoxicity of di-Na ethylenebis(dithiocarbamate) (I) and tetramethylene diisothiocyanate (II) towards Penicillium italicum and Aspergillus niger. Reaction products of the fungicides with the thiol compds. show greatly reduced toxicity. It is probable that inactivation by added thiol compds. is caused by direct chemical reaction of the fungicide and SH group of the compound, without mediation of cell constituents, and that the fungitoxicity of I and II is due to reaction between the fungicide and essential SH compds. in the cell.

IT 714189-52-3, Carbamic acid, tetramethylenebis[dithio-, bis-(carboxymethyl) ester
(fungitoxicity of)

RN 714189-52-3 CAPLUS

CN 3,12-Dithia-5,10-diazatetradecanedioic acid, 4,11-dithioxo- (9CI) (CA INDEX NAME)



$$HO_2C-CH_2-S-\overset{S}{\overset{\|}{C}}-NH-(CH_2)_4-NH-\overset{S}{\overset{\|}{C}}-S-CH_2-CO_2H$$

L10 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1962:444790 CAPLUS
DOCUMENT NUMBER: 57:44790
ORIGINAL REFERENCE NO.: 57:8966a-b
TITLE: Fungicidal compounds
INVENTOR(S): van der Kerk, Gerrit J. M.
PATENT ASSIGNEE(S): N. V. Philips' Gloeilampenfabrieken
SOURCE: 4 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 96797		19610116	NL	19550330 <--

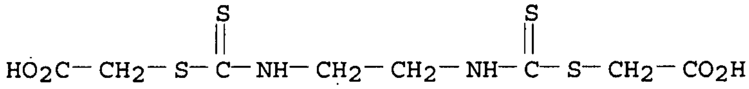
PRIORITY APPLN. INFO.: NL 19550330

AB Fungicidal compds. with systemic activity are the dithiocarbamates of the formula R1R2NC(S)YR3C(O)X or the formula R4 [NR2C(S)YR3C(O)X]2, in which R1 and R2 are H or alkyl, or may form a 5- or 6-membered ring with N; R3 is alkylene, aralkylene or arylene; R4 = R3, or may form a ring with the NR2 groups; X is NH2, OH, ONa, or O-alkyl, O-aryl or O-aralkyl; and Y is O or S. Examples are S-1-carboxypropyl N,N-dimethyldithiocarbamate, the corresponding carboxymethyl, or 1-carboxyethyl derivs. The active compds. are applied prophylactically or on infected plants in the form of mixts. with solid or fluid carriers in usual dilns.

IT 92348-14-6, Carbamic acid, ethylenebis[dithio-, diester with Na mercaptoacetate 95708-04-6, p-Benzenedicarbamic acid, tetrathio-, diester with mercaptoacetic acid, di-Na salt
(as fungicide)

RN 92348-14-6 CAPLUS

CN Carbamic acid, ethylenebis[dithio-, diester with mercaptoacetic acid, disodium salt (7CI) (CA INDEX NAME)

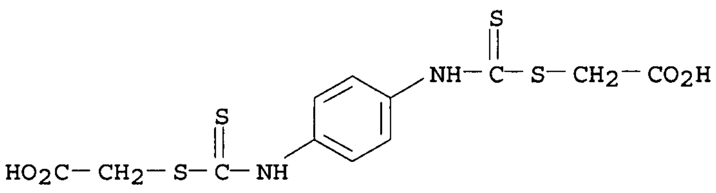


$$HO_2C-CH_2-S-\overset{S}{\overset{\|}{C}}-NH-CH_2-CH_2-NH-\overset{S}{\overset{\|}{C}}-S-CH_2-CO_2H$$

●2 Na

RN 95708-04-6 CAPLUS

CN p-Benzenedicarbamic acid, tetrathio-, diester with mercaptoacetic acid, disodium salt (7CI) (CA INDEX NAME)



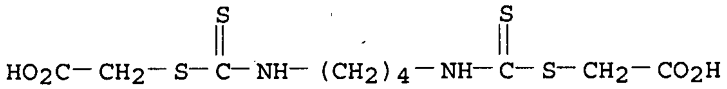
●2 Na

IT 93689-22-6, Carbamic acid, tetramethylenebis[dithio-, diester with

mercaptoacetic acid, di-Na salt
(fungicide)

RN 93689-22-6 CAPLUS

CN Carbamic acid, tetramethylenebis[dithio-, diester with mercaptoacetic acid, disodium salt (7CI) (CA INDEX NAME)



$$HO_2C-CH_2-S-\overset{\overset{S}{\|}}{C}-NH-(CH_2)_4-NH-\overset{\overset{S}{\|}}{C}-S-CH_2-CO_2H$$

●2 Na